

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (Currently amended). A method for modifying an image comprising:

- (a) receiving an image having a first bit depth;
- (b) modifying said image using a sieve filter performing a summation operation that replaces the value of a target pixel with the value of a central pixel in said summation operation when said target pixel differs from said central pixel by a value larger than a threshold, to create a modified image resulting in a second bit depth different than said first bit depth in such a manner that the higher frequency content with respect to the lower frequency content of said image is attenuated, and attenuating the lower amplitude content of said higher frequency content with respect to the higher amplitude content of said higher frequency content;
- (c) modifying said modified image based upon said modified image and said lower frequency content of said image.

2-4 (Canceled).

5 (Original). The method of claim 1 wherein said attenuating the lower amplitude content of said higher frequency content with respect to the higher amplitude content of said higher frequency content includes a coring function.

6 (Original). The method of claim 5 wherein said coring function includes a hard-threshold.

7 (Original). The method of claim 5 wherein said coring function includes a transitional coring function.

8 (Original). The method of claim 5 wherein said coring function includes a continuous 1st derivative.

9 (Original). The method of claim 5 wherein said coring function includes no discontinuity in actual value.

10 (Original). The method of claim 1 wherein said received image of step (a) is represented by X bit depth.

11 (Original). The method of claim 10 wherein said modified image of step (b) is represented by Y bit depth.

12 (Original). The method of claim 11 wherein $X > Y$.

13-14 (Canceled).

15 (Original). The method of claim 1 wherein said modifying of step (b) changes the physical bit depth representation of the image.

16 (Original). The method of claim 1 wherein said modifying of step (b) does not change the physical bit depth representation of the image.

17 (Original). The method of claim 1 being performed in a manner free from including conditional statements.

18 (Original). The method of claim 1 being performed in a manner using a buffer smaller than 100 percent of said received image.

19 (Original). The method of claim 1 being performed in a manner using a buffer smaller than 30 percent of said received image.

20 (Original). The method of claim 1 being performed in a manner that is free from adding additional noise to said image.

21 (Canceled).

22 (Original). The method of claim 1 wherein said modifying includes reducing noise in regions proximate edges substantially to the same extent as noise in regions not proximate said edges.

23 (Canceled).

24 (Currently amended). A method for modifying an image comprising:

(a) receiving an image having a first bit depth wherein modifying said image to a second bit depth would result in artifacts, wherein said first bit depth is less than said second bit depth;

(b) modifying said image to another bit depth different than said first bit depth in such a manner that the lower amplitude higher frequency content with respect to the higher amplitude lower frequency content of said image is attenuated to reduce said artifacts that would have otherwise occurred;

(c) wherein said modifying includes a filter that is based upon a selection of pixels of said image wherein at least of one said pixels is selectively not considered; and

(d) wherein said modifying said image to another bit depth is performed using a Sieve filter that is applied only in the horizontal direction after averaging pixels vertically spaced apart from each other.

25 (Canceled).

26 (Original). The method of claim 25 wherein said filter is represented by

$$I_{LP}(x, y) = \frac{\sum_{(i,j) \in E \& |I(i,j) - I(x,y)| < T} I(i, j)}{N(x, y)} .$$

27 (Original). The method of claim 24 wherein said artifacts are contouring artifacts.

28 (Original). The method of claim 24 wherein said filter is a 1-dimensional rectangle.

29 (Original). The method of claim 24 wherein said filter is a 2-dimensional rectangle.

30 (Currently amended). A method for modifying an image comprising:

(a) receiving an image having a first bit depth wherein modifying said image to a second bit depth would result in contouring artifacts;

(b) modifying said image to another bit depth different than said first bit depth in such a manner that the lower amplitude higher frequency content with respect to the higher amplitude lower frequency content of said image is attenuated to reduce said contouring artifacts that would have otherwise occurred;

(c) wherein said modifying includes a sieve filter represented by

$$I_{LP}(x, y) = \frac{\sum_{(i,j) \in E \& |I(i,j) - I(x,y)| < T} I(i, j) \times (N_{total} N(x, y)) \times I(x, y)}{N_{total}}.$$

31 (Canceled).

32 (Original). The method of claim 30 wherein said filter is a 1-dimensional rectangle.

33 (Original). The method of claim 30 wherein said filter is a 2-dimensional rectangle.

34-60 (Canceled).